Joro Walker, USB #6676
David Becker USB #11037
WESTERN RESOURCE ADVOCATES
425 East 100 South Street
Salt Lake City, Utah 84111
Telephone: 801.487.9911
Fax: 801.486.4233
Attorneys for Utah Chapter of the Sierra Club

BEFORE THE UTAH AIR QUALITY BOARD

In Re: Approval Order – PSD Major Modification to Add New Unit 3 at Intermountain Power Generating Station, Millard County, Utah Project Code: N0327-010 DAQE-AN0327010-04	:	SIERRA CLUB'S REPLY IN FURTHER SUPPORT OF ITS MOTION FOR SUMMARY JUDGMENT

The Utah Chapter of the Sierra Club (Sierra Club) respectfully submits this Reply Memorandum in further support of it Motion for Summary Judgment on the claims in Statements of Reasons # 20 and # 21 of its First Amended Request for Agency Action, and for an order by the Air Quality Board (Board) remanding the Approval Order (AO) for the Unit 3 facility proposed by the Intermountain Power Service Corporation (IPSC) to the Division of Air Quality and the Executive Secretary (collectively "DAQ") for further proceedings. In further support of its motion, and in reply to DAQ's and IPSC's opposition to that motion, Sierra Club submits the following memorandum. This memorandum also addresses Sierra Club's pending motion to amend its request for agency action and its motion for summary judgment on Statement of Reasons # 22 in the proposed amendment.

INTRODUCTION

By virtue of Sierra Club's Motion for Summary Judgment on Statements of Reasons # 20 and # 21, the Board is asked three questions:

1) whether, based on undisputed facts, Condition 4 of the AO, which states that modifications to equipment or processes that **could affect** air emissions are subject to R307-401-1, requires the Executive Secretary to undertake public notice and comment and other procedures before approving the design change for Unit 3;

2) whether, based on undisputed facts, the Executive Secretary's one line "equivalency determination" is supported, or adequately explained, by the Administrative Record, and;

3) whether, based on undisputed facts, the Executive Secretary's "equivalency determination" is incorrect because supercritical technology is not equivalent to subcritical technology and because approval of the design change, as currently proposed, would violate the AO.

If the answer to the first of these questions is "yes," then the AO must go back to DAQ for compliance with R307-401-1 in connection with IPSC's request that a supercritical boiler be installed at Unit 3.[1] If the answer to the second question is "yes," then the AO must go back to DAQ for reexamination of the design change request and for a response to that request that is reasoned and supported in the record. If the answer to the third question is "yes," then the AO must go back to DAQ for compliance with R307-401-1 and a reasoned decision on the request that is supported by the record. In each of these instances, DAQ would have to reexamine whether and how to adjust the AO as a result of the design change, particularly through a revised Best Available Control Technology ("BACT") analysis and the associated determination of appropriate emission

[1] Under the Utah Administrative Procedures Act, compliance with R307-401-1 requires that DAQ make a reasoned decision regarding the design change request that is supported by substantial evidence and complies, procedurally and substantively, with all applicable statutes and regulations. Utah Code Ann. § 63-46b-16.

limitations for the supercritical boiler at Unit 3. Sierra Club is not, at this juncture, asking the Board to decide what AO terms and conditions are appropriate for supercritical technology, or what emission limits should be set for this boiler type. These concerns must be dealt with first by DAQ if and when the AO is sent back to the agency for a proper examination of the design change request.

To answer these questions at this stage in the proceeding, the Board must look to only undisputed facts. If on the basis of those facts, the Board can resolve any of the three questions in the affirmative, then sending the AO back to DAQ is appropriate. Addressing these issues early in this proceeding makes practical sense. If indeed, the Board finds – on the basis of undisputed facts – that the AO should be remanded to examine the design change request, it is best this central issue be dealt with now, rather than waiting to do so. A delay in resolution of the design change inquiry could seriously hamper the ultimate adjudication of the adequacy of the AO.

That said, the Board has before it undisputed facts that show that the AO must be remanded. As Sierra Club shows in detail below, each of the three question is answered in the affirmative based on:

- IPSC's statement in its August 24, 2004 Response to Comments.[2]
- DAQ's statements in its October 14, 2004 Response to Comments.[3]
- The terms and conditions of the AO.[4]
- The statements in the Utah Associated Municipal Power Systems (UAMPs) August 4, 2006 letter.[5]
- The Executive Secretary's one line "equivalency determination."[6]

[2] AR IPSC 3891
[3] AR IPSC 4279.
[4] AR IPSC 4331-45.
[5] AR IPSC 4473-77.
[6] AR IPSC 4478.

Not surprisingly, as each of these facts comes from either DAQ or the applicant, IPSC or UAMPs, none of the parties disputes their validity. As a result, summary judgment is appropriate on each of the three questions and the AO must be sent back to DAQ for further review and procedures.

STANDARD OF REVIEW

When a party moves for summary judgment, the party opposing the summary judgment "may not rest upon the mere allegations or denials of the pleadings, but the response, by affidavits or as otherwise provided in this rule, must set forth specific facts showing that there is a genuine issue for trial. Summary judgment, if appropriate, shall be entered against a party failing to file such a response." Utah R. Civ. P. 56(e). Thus the Executive Secretary and IPSC are required to set forth specific facts, and properly support their assertions, to show that there are material issues of disputed fact. If the oppositions to a motion for summary judgment are not properly supported with specific factual evidence, the Board should grant the motion. Smith v. Four Corners Mental Health Ctr., Inc., 2003 UT 23, ¶ 40, 70 P.3d 904 ("when the moving party has presented evidence sufficient to support a judgment in its favor, and the opposing party fails to submit contrary evidence, a trial court is justified in concluding that no genuine issue of fact is present or would be at trial") (citation omitted).

STATEMENT OF FACTS

Undisputed Facts

The following are undisputed facts:

- Condition 4 of the AO provided that "Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401-1."[7]
- Condition 6 of the AO provided that "Intermountain Power Service Corporation (IPSC) shall install and operate the nominal 950 gross-MW power generating Unit 3 with dry-bottom pulverized coal fired boiler and modified equipment associated with Unit 3, as defined by this AO, in accordance with the terms and conditions of this AO, which was written pursuant to IPSC's Notice of Intent submitted to the Division of Air Quality (DAQ) on December 16, 2002 and significant additional information provided throughout the process."[8]
- In its August 4, 2006 letter, IPSC stated that "[i]nstallation of a supercritical boiler will result in a net decrease in emissions as measured in lbs/MWh."[9]
- In its August 4, 2006 letter, IPSC stated, in comparing subcritical and supercritical boiler technology, that "there is approximately a three percent improvement in heat rate between the two cycles, thereby increasing the power output" of the supercritical technology "for the same coal burned in the boiler."[10]
- In its October 14, 2004 Response to Comments on the Intent to Approve for IPSC Unit 3, DAQ also responded to Sierra Club's statement that DAQ and IPSC should have considered a supercritical PC boiler for Unit 3. The agency stated that: "a top-down analysis including supercritical boiler technology, though not required, was provided. That analysis shows that supercritical boilers would not be appropriate for the IPP project."[11]

Neither the Executive Secretary nor IPSC disputes these facts. Therefore, they are taken as true.

---

[7] Fact No. 5, Sierra Club's Opening Memo – Exhibit 1 to Opening Memo at 3, AR IPSC 4334.
[8] Fact No. 6, Sierra Club's Opening Memo – Exhibit 1 to Opening Memo at 3, AR IPSC 4334.
[9] Fact No. 11, Sierra Club's Opening Memo – Exhibit 5 to Opening Memo at 3, AR IPSC 4475.
[10] Fact No. 12, Sierra Club's Opening Memo – Exhibit 5 to Opening Memo at 2, AR IPSC 4474.
[11] Fact No. 9, Sierra Club's Opening Memo – Exhibit 4 (UDAQ Response to Comments received on IPSC Intent to Approve number DAQE-IN327010-04), AR IPSC 4297.

The following is also an undisputed fact:

- There was no notice to the public of the proposed modification of the AO, and no opportunity for public comment, before the Executive Secretary approved the modification of the AO.[12]

The Executive Secretary **claims** that he disputes this fact. However, he does not. Rather, he states "the public notice and opportunity for comment provisions" of R307-401 "were not required." Exec. Sec. Response at 8-9. He does **not** state that public notice and opportunity **were** provided – he states only that they were not required. Therefore, it must be accepted as true that "there was no notice to the public of the proposed modification of the AO, and no opportunity for public comment, before the Executive Secretary approved the modification of the AO."[13] Whether or not such public notice was required is a question of law[14] that can and should be decided on the basis of the undisputed facts in this matter. Sierra Club establishes below that, on the basis of undisputed fact, public notice and comment are required under Condition 4 of the AO.

The Administrative Record Contains No Analysis to Support the Executive Secretary's Purported Equivalency Determination.

The Executive Secretary does dispute Sierra Club's Fact Number 14, which states that "[t]he Administrative Record contains no analysis to support the Executive Secretary's determination" that IPSC could install a supercritical boiler rather than the permitted subcritical boiler at Unit 3. See also IPSC Response at 6-7 (disputing Fact Number 14).

---

[12] Fact No. 15, Sierra Club's Opening Memo – see Exhibit 2 to Opening Memo (Final Preliminary Index to the Administrative Record).
[13] Id.
[14] This question is a legal one because it based on interpretation of the terms and conditions of the AO. Neither the Executive Secretary nor IPSC disputes the language of the AO which Sierra Club has quoted directly from the Administrative Record. See AR IPSC 4331-45.

However, the Executive Secretary's attempts to contest this fact fail. Rather, based on undisputed facts – DAQ's October 14, 2004 Response to Comments,[15] the August 4, 2006 UAMPS letter[16] and the Executive Secretary's one line "equivalency determination"[17]– it is apparent that the Administrative Record does **not** support the Executive Secretary's finding that subcritical technology approved in the AO for Unit 3 is equivalent to the supercritical technology, as proposed by UAMPS.

The Executive Secretary Points to Nothing in the Record to Support His "Equivalency Determination."

First, other than the three documents listed above, there is nothing in the record that serves to support the Executive Secretary's equivalency determination, and he points to nothing. Exec. Sec. Response at 7-8. Rather, the Executive Secretary defends his one line "determination" by saying "[b]ased upon the submitted materials and the Division of Air Quality's experience and review of supercritical boilers for the **original** issuance of the Approval Order the Executive Secretary agreed that the supercritical PC boiler would be equivalent to the subcritical PC boiler and allowed the substitution." Exec. Sec. Response at 8 (citing Exhibit D (IPSC letter) & Exhibit E (Exec. Sec. Reply letter) (emphasis added). Therefore, nowhere in the record is anything that shows that the Executive Secretary independently analyzed the undocumented letter submitted by UAMPS in August 2006, that shows that he considered and addressed the inconsistencies between the submitted materials and the AO, or that shows how he resolved the many

[15] AR IPSC 4297.
[16] AR IPSC 4473-77.
[17] AR IPSC 4475.

issues that led him and IPSC "for the **original** issuance of the AO" to outright reject supercritical technology as **in**appropriate for Unit 3.[18]

The Board, acting in its adjudicative capacity and reviewing the Executive Secretary's decision, can only rely on the justification that the Executive Secretary gave at the time the decision was made on August 17, 2006. It is a basic principle of the administrative review process that the reviewing body (court or Board) cannot affirm an action on a basis that the agency itself does not provide, nor upon a subsequent, "post hoc" justification for the action. See, e.g., SEC v. Chenery Corp., 332 U.S. 194, 196 (1947) ("a reviewing court, in dealing with a determination or judgment which an administrative agency alone is authorized to make, must judge the propriety of such action solely by the grounds invoked by the agency. If those grounds are inadequate or improper, the court is powerless to affirm the administrative action by substituting what it considers to be a more adequate or proper basis."); see also State v. Williams, 2006 UT App 420, ¶ 27, 147 P.3d 497 (holding in a criminal case that factual grounds for a lower court's contempt citation had to be based on contemporary fact findings, and that the lower court could not supply a "post hoc justification").

Accordingly, the Board cannot, and would not be able to, consider any explanation for the equivalency determination aside from the facts that the Executive Secretary has presented in opposition to the Sierra Club's motion for summary judgment on this issue and that appear in the Administrative Record. The Executive Secretary made the equivalency determination more than seven months ago, and has had the fair opportunity provided by Utah Rule of Civil Procedure 56 to present evidence – including

[18] AR IPSC 3891, 4297.

the ability to prepare and present evidentiary affidavits – contradicting Sierra Club's statement of undisputed fact that the equivalency determination is wholly unsupported by analysis. Because the Executive Secretary has not offered any evidence to support the validity of the equivalency determination, other than the one line equivalency determination that appears in the Administrative Record, he and IPSC cannot subsequently present post-hoc justifications for the determination that the Executive Secretary did not properly support at the time.

The UAMPS Letter is Not Credible.[19]

Initially, the Executive Secretary cannot rely on the UAMPS letter to support his acquiescence to the design change request. This is because the Administrative Record shows that the UAMPs letter is **not** credible. First, it is authored by Douglas O. Hunter, "Chairman, Unit 3 Development Committee" for UAMPS,[20] but nowhere in the letter, or the record, is there any indication that Mr. Hunter is qualified to give evidence about subcritical and supercritical technology or about BACT analysis.[21] There is nothing in

[19] Sierra Club is not being inconsistent by rejecting the UAMPS letter as not credible, while relying on it to establish that supercritical technology, as proposed by UAMPS for Unit 3 is not equivalent to the subcritical technology approved by the AO. If the Board discredits the UAMPS letter then it is even more apparent that the Executive Secretary cannot support his equivalency determination, and the issue must be sent back to DAQ so the agency can make a decision based on thorough analysis of the issue and with the benefit of public notice and comment. Otherwise, the UAMPS letter also compels sending the supercritical issue back to DAQ, as the document shows that supercritical technology proposed for Unit 3 is not equivalent to the subcritical technology approved in the AO.

[20] AR IPSC 4476.

[21] That IPSC has now submitted an affidavit that purports to support the UAMPS letter does not change this analysis. That is because what matters in assessing the Executive Secretary's decision is what was before him when he made his decision. After the fact or post hoc justifications are not permissible. An agency's action "'must be upheld, if at all, on the basis articulated by the agency itself' at the time of the decision, not post hoc rationalizations." Anacostia Watershed Society v. Babbitt, 871 F.Supp. 475, 486 (D.D.C.

the Administrative Record regarding any expertise, training, knowledge, skill or education that Mr. Hunter might possess that would qualify him to have submitted unsupported statements to the Executive Secretary regarding sub-critical and super-critical pulverized coal-fired boiler technology. As a result, the Executive Secretary should have, out of hand, dismissed the information in the UAMPS letter relating to subcritical and supercritical boilers, as well as BACT analysis, as coming from an unqualified and source. Significantly, neither the Executive Secretary nor IPSC has submitted any evidence of Mr. Hunter's qualifications or competence as a witness with their Responses.

Second, the UAMPS letter sets forth its various conclusions without offering any analysis as to how it reached its conclusions. UAMPS makes no citation to its sources, provides no documentation, and refers to no authority. Rather, the UAMPS letter consists of broad, often conclusory, assertions, made without foundation, that conveniently support the UAMPS request.

Third, the UAMPS letter only makes claims as to "typical" supercritical boilers,[22] and does **not** address the actual boiler that will be installed at Unit 3. AR IPSC 4474 ("the supercritical boiler design typically has a 3500 psig/1050ºF/1100ºF steam power cycle providing a net plant efficiency (HHV) of approximately 36.75 percent."). As UAMPS

1994), quoting Motor Vehicle Manufacturers Ass'n v. State Farm Mutual Auto Ins. Co., 463 U.S. 29, 50 (1983); see also Utahns for Better Transp. v. U.S. Dept. of Transp., 305 F.3d 1152 (10th Cir. 2002) (refusing to consider extra record information as a post hoc rationalization). Nor does it make sense to refer to documents that were not in front of the Executive Secretary to support a decision he made.

[22] That IPSC has now submitted an affidavit that purports to support the UAMPS letter does not change this analysis. After the fact or post hoc rationalization prohibited. In addition, neither the UAMPS letter nor the IPSC affidavit deal with the changes coal type has on efficiency.

subsequent conclusions, including that "there is approximately a three percent improvement in heat rate between the two cycles," id., are based on what UAMPS contends to be a "typical" supercritical boiler, these assertions are of dubious value for determining equivalency.

Fourth, the UAMPS letter does not address the oversights and inconsistencies internal to the letter or between the letter and the position taken by DAQ and IPSC relative to "the **original** issuance of the Approval Order." See Exec. Sec. Response at 8. For example, IPSC and UAMPS together admit that supercritical technology would or could reduce emissions of air pollutants:

- In its August 24, 2004 Response to Comments, IPSC admits that supercritical technology would lead to "actual reduction in tons per year" in air pollution.[23]
- In its August 4, 2006 letter, UAMPS stated that "[i]nstallation of a supercritical boiler will result in a net decrease in emissions as measured in lbs/MWh."[24]

Yet, in its letter, UAMPS states that "emission limits will be the same for a subcritical or supercritical design," AR IPSC 4478, even though the AO contains emission limits in tons per year,[25] pounds per hour,[26] and pounds per megawatt hour. AR IPSC 4336-37.[27] Thus, the UAMPS letter does not explain, nor does the Executive

[23] AR IPSC 3891. The corporation did go on to state that these emission reductions "do not warrant the increase in capital costs, safety, and equipment compatibility issues associated with a supercritical boiler." Id.
[24] AR IPSC 4475.
[25] AR IPSC 4344-45.
[26] AR 4337. Because "pounds" and "tons" are units of weight, and "minutes" and "hours" are units of time, "pounds per minute" can be arithmetically converted directly into "tons per hour." Thus "pounds per minute" and "tons per hour" are equivalent measurements of the amount of pollution produced.
[27] Notably, the UAMPS letter's Exhibit 1 makes no comparison of emissions expressed in pounds per hour or pounds per megawatt hour between subcritical and supercritical technologies, even though the AO contains emission limitations expressed in these terms, and even though IPSC and UAMPS admit that emission limits expressed in these terms would be lower.

Secretary's silence explain, how an AO that contains emission limits for pounds per hour and pounds per megawatt hour should not be different, based on UAMPS' conclusion that these emissions will decrease.

At the same time, UAMPS admits that by changing the design technology from subcritical to supercritical, Unit 3 will produce more 950 megawatts of electricity:

- In its August 4, 2006 letter, UAMPS stated that because of a "three percent improvement in heat rate" supercritical technology for Unit 3 would "increase[e] the power output" of the facility "for the same coal burned in the boiler."[28]
- UAMPS also states that over subcritical, "typical" supercritical result in "approximately a three percent improvement in heat rate. . . ."[29]

As UAMPS promises that "supercritical boiler will have the same maximum gross heat input,"[30] by authorizing the design change to supercritical, the Executive Secretary has now authorized the construction of, at a minimum, a 979 megawatt facility. Yet, the UAMPS letter fails to explain, and the Executive Secretary's silence fails to explain, how this can be reconciled with an AO that approves only a 950 megawatt facility.

Finally, IPSC and DAQ both found supercritical technology inappropriate for Unit 3:[31]

- In its August 24, 2004 Response to Comments, IPSC recounted several reasons why supercritical technology would be inappropriate for Unit 3, including "safety, environmental, and economic considerations . . . ."[32]

---

[28] AR IPSC 4474.
[29] Id.
[30] Id.
[31] Of course, Sierra Club disagreed with this assessment, and still disagrees with it. However, this does not change the fact that the Executive Secretary must explain, in the record, the complete reversal of his position with regard to supercritical technology for Unit 3 and must undergo a thorough public process to reexamine BACT and to determine appropriately strict emission limits based on that analysis.
[32] AR IPSC 3891.

- In its October 14, 2004 Response to Comments, DAQ concluded that its "analysis shows that supercritical boilers would not be appropriate for the IPP [Unit 3] project."[33]

Yet, the UAMPS letter fails to explain, and the Executive Secretary's silence fails to explain, how this can be reconciled with the sudden embrace of supercritical technology by UAMPS and the Executive Secretary.

The Executive Secretary's Current Position on Supercritical Technology is Completely At Odds With That Taken in the AO.

Moreover, what the record does show is that the agency's "experience and review of supercritical boilers" led it to opine that: "a top-down analysis including supercritical boiler technology . . . . shows that supercritical boilers would **not be appropriate** for the IPP project."[34] Thus, the last thing the public heard from the Executive Secretary about supercritical technology – and the last thing the public was allowed to comment on – was that, according to the agency's expertise, it was an unacceptable for Unit 3. Now, based only on a one line statement of deference to the regulated entity's opportune characterization of a "typical" supercritical boiler, the Executive Secretary has reversed his position completely. That there is nothing in the record to explain or otherwise support this reversal means that, based on undisputed fact, the Executive Secretary's decision is not supported by the record.

Thus, the many shortcomings of the UAMPS letter, together with the Executive Secretary's abrupt change of heart regarding supercritical technology at Unit 3 underscore that the Executive Secretary's failure to explain his equivalency determination

[33] AR IPSC 4297.
[34] Fact No. 9, Sierra Club's Opening Memo – Exhibit 4 (UDAQ Response to Comments received on IPSC Intent to Approve number DAQE-IN327010-04), AR IPSC 4297 (emphasis added).

is fatally flawed. A record that contains no independent evaluation, no questioning of the sources and qualifications of the UAMPS letter, and no elucidation of the Executive Secretary's reconciliation of the many inconsistencies that plague IPSC, UAMPS and DAQ's analysis of supercritical technology cannot and does not support the Executive Secretary's acquiesces to the design change request. Moreover, because all of the above conclusions are based on undisputed facts – namely IPSC, UAMPS and the Executive Secretary's own statements, they provide the basis for a grant of summary judgment and for sending the AO back to DAQ for a proper evaluation of the design change request.

One Disputed, Though Not Material Fact

The Executive Secretary cites the IPSC letter for the proposition that changing the design for Unit 3 to supercritical would "accommodate[] those who favored a supercritical boiler design in the comments regarding the AO." Exec. Sec. Response at 9 (quoting AR IPSC 4479); see also IPSC Response at 5-6, ¶ 12. While this issue is not material to Sierra Club's Motion for Summary Judgment on Issues # 20 and # 21, Sierra Club is compelled to underscore the inaccuracy of this "fact." As the organization made clear in its opening memorandum, Sierra Club argued, and still argues, that a supercritical boiler would be superior to a subcritical boiler for Unit 3 in terms of gains to the public health, environment and visibility.[35] However, Sierra Club bases this contention on the fact that a supercritical boiler for a 950 gross megawatt power plant would produce significantly lower emissions of criteria pollutants, as well as CO_2, and that, after proper BACT analysis**,** the terms and conditions of an AO would reflect these lower emission rates**.** Id.

[35] Exhibit 7 to Opening Memo, AR IPSC 4496.

However**,** as the AO now stands after the August 17, 2006 amendment, a supercritical unit may be installed at Unit 3 with no decrease in hourly emissions or other restrictions, such as on maximum heat input capacity or annual amount of coal burned, that would ultimately limit emissions.[36] Instead, the amended AO allows IPSC to generate more electricity than specified by the AO terms and conditions and, as a result, to produce the same amount of air pollution. As a result, there will be **no** benefit to the environment in terms of emissions of air pollutants. Therefore, both the Executive Secretary and IPSC are wrong when they suggest that the proposal "accommodates" those who favored supercritical technology or that the proposed design change would benefit the environment in terms of air emissions.

ARGUMENT

I. Based on Undisputed Facts, Summary Judgment Should Be Granted on Statements of Reasons # 20 and # 21.

Before turning to the three questions posed above and showing that each, on the basis of undisputed fact, must be answered in the affirmative, Sierra Club addresses various contentions raised by the Executive Secretary and IPSC.

A. The Various Contentions Made By the Executive Secretary and IPSC Are Readily Dismissed As Unpersuasive.

1. The Term "Modification" in Condition 4 Means a Change in "Equipment" that "Could Affect" Emissions and is Not Defined by R307-101-2.

The Executive Secretary relies heavily on the definition of "modification" found at Utah Admin. Code R307-101-2 to suggest that Condition 4 of the AO applies only to "any planned change in a source which results in a potential increase in emission." Exec.

[36] Exhibit 6 to Opening Memo, AR IPSC 4478.

Sec Response at 6;[37] see also IPSC Response at 12-14 (making similar argument). The Executive Secretary's argument is not convincing and his definition of "modification" would make Condition 4 nonsensical.

First, what the Executive Secretary ignores is that Condition 4 of the AO already defines modification in terms of emissions by stating that "[m]odifications to [] equipment or processes . . . that **could affect** the emissions covered by the AO" are subject to R307-401-1. Utah Admin. Code R307-101-2 defines modification as "any planned change in a source which results in a potential increase of emission." Condition 4, by its own terms, already applies to any modifications that "could affect emissions" and therefore, resorting to a definition outside the AO that relates to emissions makes no sense. This is particularly true where the definition of modification outside the AO conflicts directly with the definition contained within the AO. Condition 4 refers to modifications that "could affect" emissions, while R307-101-2 refers to modifications have the potential to "increase" emissions. Restricting modifications to only instances where emissions could increase would nullify the plain text of Condition 4 that makes changes to equipment that "could affect" emissions subject to R307-401-1.

Second, the R307-101-2 definition does not pertain to modifications to "equipment or processes." By its own terms, R307-101-2 applies only to modifications to a "source." Utah Admin. Code R307-101-2 (stating that modification "means any planned change **in a source** which results in a potential increase of emission"); see also Exec. Sec. Response at 6. The same rule defines "source" as "any structure, building, facility, or installation which emits or may emit any air pollutant. . . ." Utah Admin.

[37] This is not a factual issue, but a legal one. What this Board must determine is the legal consequence of Condition 4.

Code R307-101-2. On the other hand, Condition 4 and Condition 7 deal with modifications to "equipment." Condition 4 references "modifications to the equipment or processes approved by this AO." Condition 7, the condition under which the Executive Secretary made his "equivalency determination," also applies to "equipment." AR IPSC 4334. Since the term "modification" of R307-101-2 relates only to structures, buildings, facilities or installations and **not** to equipment or processes, it is illogical to resort to this definition to interpret Condition 4, which expressly refers to changes in equipment.[38]

Thus, the only way to read Condition 4 is to take it at face value. Condition 4 requires that "modifications to the equipment or processes approved by th[e] AO that could affect the emissions covered by th[e] AO" be subject to R307-101-1. As this Condition is self explanatory and correctly focuses on changes to "equipment," there is no need to go outside the AO to understand it. Moreover, reference to definitions outside the AO that deal with modifications to sources and installations makes Condition 4 nonsensical and therefore must be rejected.

[38] IPSC makes a similar argument, relying instead on Utah Admin.Code R307-401-1(1) (2004) and R307-401-11 and 401-12 (2006). IPSC Response at 12-13 & fn. 10. IPSC's argument is likewise readily dismissed. As with Utah Admin. Code R307-101-2, R307-401(1) (2004) applies to modifications to **installations**, not to **equipment**. In addition, the regulation applies to modifications to **exiting** installations, not to ones that have yet to be built. Id. Likewise, R307-401-11 applies to the "replacement" of "existing" equipment. Utah Admin. Code R307-401-11(1). Quoting selectively, IPSC forgets to point out that R307-401-12 ("Reduction in Air Contaminants"), which was in effect at the time the Executive Secretary approved the design change, only applies if "the reduction of air contaminants is made enforceable through an approval order . . . ." Utah Admin. Code R307-401-12(1)(b) & 401-12(2). Therefore, none of these regulations is applicable to the interpretation of Condition 4. In any case, Condition 4 is self explanatory and no reference to definitions outside the AO is necessary.

2. The Executive Secretary Regulates Electricity Production As Part of His Duty to Minimize Air Pollution.

The Executive Secretary's statement that "[i]n making an equivalency determination under Condition 7, [he] regulates air pollution, not electricity production," Exec. Sec. Response at 7, is unconvincing. Initially, Executive Secretary offers no citation for this assertion, and provides no basis for it. Moreover, this contention conflicts directly with the relevant regulations, as well as the Notice of Intent and AO.

For example, the relevant regulations state that a Notice of Intent "**shall**" include, at the onset, a "description of the nature of the processes involved; the nature, procedures for handling and quantities of raw materials; the type and quantity of fuels employed; and the nature and **quantity** of finished product." Utah Admin. Code R307-401-5(2)(a). As a result, through out its analysis and description of the proposed facility, IPSC's Notice of Intent states approximately 39 times that Unit 3 will be a 950 megawatt facility. This fact forms the backbone of the Notice of Intent and the basis for myriad of statements and conclusions. Some calculations, such as capitol costs for fabric filters[39] and for a wet ESP,[40] use directly the number 950 in their determination of costs per kilowatt.

Moreover, the AO itself declares that IPSC "**shall** install and operate the nominal[41] 950 gross-MW power generating Unit 3 . . . in accordance with the terms and

---

[39] AR IPSC 0948 (capitol cost regarding the fabric filters provided in dollars per kilowatt).

[40] AR IPSC 1236 (capitol cost of a wet ESP for H_2SO_4 control given in $/kW)

[41] IPSC's argument that the use of the term "nominal" means that the AO approves the installation of any technology, no matter how much electricity it produces, is unavailing. IPSC Response at 21, fn. 17. IPSC defines nominal as "not real" and "not actual." Id. Thus, the corporation suggests that it cannot install an actual coal-fired power plant, only an illusory one. This makes no sense.

conditions of this AO, which was written pursuant to IPSC's Notice of Intent."[42] In that Notice of Intent, IPSC states at least 39 times it is going to build a 950 gross megawatt facility and **never** once contends it would build anything but a 950 gross megawatt facility. Thus, it is plain that in order to carry out the purpose and the letter of the Utah Air Conservation Act, as well as the Clean Air Act, to **prevent** air pollution,[43] the Executive Secretary does and must, at the very least, establish how much electricity a facility will generate. Otherwise, the AO and the Notice of Intent upon which it is based are insufficiently concise to form the basis of a reasoned and supportable decision.

3. Sierra Club's Motion for Summary Judgment is Not Premature.

The Executive Secretary seems to imply that Sierra Club's Motion for Summary Judgment on Issues #20 and #21 is premature. Exec. Sec. Response at 9. However, under the Utah Rules of Civil Procedure, "a party may amend [her or] his pleading once as a matter of course at any time before a responsive pleading is served . . . ."[44] Here, Sierra Club amended its Request for Agency Action to include Issues #20 and #21 before the Executive Secretary or IPSC answered that request. Therefore, Sierra Club did not need permission to amend its pleading.

4. The Board May Properly Reply on the EPA Report and the Koucky and and Thompson Affidavits to Grant this Motion for Summary Judgment.

IPSC's contentions that the EPA Report and the Koucky and Thompson declarations are not admissible are incorrect. First, IPSC's argument that the

[42] AR IPSC 4334 (Condition 6).
[43] Utah Code Ann. § 19-2-101(4)(a) (stating the purpose of the Act as to "provide for a coordinated statewide program for air pollution prevention, abatement, and control."); 42 U.S.C. § 7401(c) (Congressional declaration that the primary purpose of the Clean Air Act is air pollution prevention).
[44] Utah Rules of Civ. Pro. 15(a).

Environmental Protection Agency (EPA) Report is inadmissible "hearsay" is inapposite because the Utah Administrative Procedures Act expressly provides that the Board "may not exclude evidence solely because it is hearsay." Utah Code Ann. § 63-46b-8(c).[45] In addition, the Utah Administrative Procedure Act provides that the Board "may take official notice of any facts that could be judicially noticed under the Utah Rules of Evidence." Utah Code Ann. § 63-46b-8(b)(iv). Public records of the executive branch of the government are among the facts that can be judicially noticed. Green River Canal Co. v. Thayn, ¶ 31 n.8, 84 P.3d 1134; see also Clappier v. Flynn, 605 F.2d 519, 535 (10th Cir.1979) (under the identical provision of the Federal Rules of Evidence, Rule 201, a court may take notice of official government publications). Thus, there are no grounds for the Board to exclude the EPA Report from its consideration.

Second, IPSC objects to the form of the Koucky and Thompson declarations. IPSC Response at 19. Attached to this Reply, as Exhibit 1, the Sierra Club submits the affidavit of John W. Thompson, which contains exactly the same substance as the declaration submitted with Sierra Club's opening brief, but corrected as to form (now including a notary's jurat and seal following Mr. Thompson's declaration "under penalty of perjury," which concluded the originally-submitted declaration). The Sierra Club expects to submit a form-corrected affidavit of Walter Koucky before the Board's hearing on April 4, 2007 to cure the form of that declaration as well, without altering its

[45] In addition, IPSC's citation to Utah Rule of Evidence 1003, IPSC Brief at 19 n. 14, is contradictory: IPSC asks the Board to exclude the EPA Report because the Sierra Club submitted only the relevant excerpts, yet IPSC states that the EPA Report is "over 150 pages long." From this it is clear that IPSC has read the report – the Sierra Club provided the report's internet URL – but evidently IPSC has been unable to come up with any "matters qualifying the part offered," or it would presumably have submitted them to rebut the evidence offered.

substance. As the unreported Pipkin case IPSC cites acknowledges, opinions expressed in the form of affidavits, and which are based on personal knowledge and show the affiant is competent to testify to the matters in the affidavit, are valid for establishing undisputed material facts on which summary judgment may be granted. Pipkin v. Haugen, 2003 UT App. 216. Indeed, Utah Rule of Civil Procedure 56, which governs summary judgment, expressly provides this. Utah R. Civ. P. 56(e) ("Supporting and opposing affidavits shall be made on personal knowledge, shall set forth such facts as would be admissible in evidence, and shall show affirmatively that the affiant is competent to testify to the matters stated therein.").[46] Affidavits unquestionably are appropriate vehicles on which to grant summary judgment, because they are "simply a method of placing evidence of a fact before the court." Murdock v. Springville Mun. Corp., 1999 UT 39, ¶ 25, 982 P.2d 65. This is particularly true if the moving party's affidavits are not opposed by the submission of evidence to contradict those affidavits – as DAQ and IPSC have failed to do in this case. Amica Mut. Ins. Co. v. Schettler, 768 P.2d 950, 957 (Utah App. 1989) (holding that "when the moving party has presented evidence sufficient to support a judgment in its favor, and the opposing party fails to submit contrary evidence, a trial court is justified in concluding that no genuine issue of fact is present or would be at trial").

Third, IPSC challenges the competency of Koucky and Thompson to testify. The relevant rule provides that "if scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness

[46] In addition, because the substantive statements by Koucky and Thompson are based on personal knowledge, they are not hearsay. Brown v. Jorgenson, 2006 UT App. 168, ¶ 21, 136 P.3d 1252.

qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise." Utah R. Evid. 702. The Utah Supreme Court has repeatedly noted that "[t]he critical factor in determining the competency of an expert is whether the expert has knowledge that can assist the trier of fact in resolving the issues before it." Wessel v. Erickson Landscaping Co., 711 P.2d 250, 253 (Utah 1985) (concluding that the trial court abused its discretion in refusing to consider an engineer's testimony on the ground that he was not a competent expert).[47] Both Koucky and Thompson easily satisfy the requirement for competent experts who "have knowledge that can assist the trier of fact."

IPSC hinges its argument on the very narrow point that Koucky and Thompson do not expressly declare they possess specialized knowledge in sub- and super-critical boiler technology. In addition to being factually incorrect, Utah courts have rejected such a narrow approach to expert qualification: "[t]he rules of evidence establish a minimum baseline for expert qualifications. They do not mandate that litigants call only the most highly qualified experts to testify." Patey v. Lainhart, 1999 UT 31, ¶ 19, 977 P.2d 1193. For example, in the Patey case, the Utah Supreme Court held that a practitioner of general dentistry was qualified to testify about endodontic treatments, despite the fact he was not an endodontist. Id. at ¶¶ 15-19.

Here, Thompson has stated that his experience includes "preparing comments on coal-fired power plant air permits," evaluating "advanced coal technologies," "frequently" addressing conferences and workshops on "pulverized coal technology" and

[47] Furthermore, "formal training or education is not a prerequisite to giving expert opinion, and a witness may qualify as an expert by virtue of his 'experience [or] training.'" Randle v. Allen, 862 P.2d 1329, 1337 (Utah 1993) (alteration in original) (citation omitted).

"pulverized coal." Thompson Affidavit, Exhibit 1 at ¶¶ 2-3. Furthermore, Thompson has testified as an expert witness in four other states' administrative proceedings, including Colorado proceedings involving a "pulverized coal plant." Id. at ¶ 4. Thompson's CV (attached to Sierra Club's February 26, 2007 motion for summary judgment in Exhibit 10) shows that he has spent the last ten years employed in jobs that require him to review and evaluate permit applications for coal-fired power plants. Koucky similarly has over 20 years of relevant experience, including an M.S. degree in Environmental Science focused on Air Pollution Control. Koucky CV (attached to Sierra Club's February 26, 2007 motion for summary judgment in Exhibit 8). One of his areas of expertise is described in his CV as "combustion and incineration" – precisely what sub- and super-critical coal-fired boilers do. Id. Koucky also has expertise in "control evaluation." Id. As a Senior Project Engineer for Science Applications International Corporation, he led "PSD, air quality, and RCRA incineration reviews" for industries including "electric utilities." Id. Before that, his work experience included responsibility "for air pollution control analysis support for government agencies and industrial facilities," as well as reviewing "permits for pollution control equipment and combustion equipment," including expertise in the calculation of emissions, and evaluation of air pollution controls. Id.; see also Koucky Declaration at ¶¶ 3-4 (attached to Sierra Club's February 26, 2007 motion for summary judgment in Exhibit 8). There is no question that Thompson and Koucky both possess knowledge regarding coal-fired power plants, their processes and emissions, and air permitting that "can assist the trier of fact," and accordingly both are competent to give expert testimony in this matter.

In any event, IPSC's arguments regarding the Koucky and Thompson declarations are simply meant to distract from the illustration above that the undisputed facts material to the Sierra Club's motion for summary judgment appear in the evidence that is in the record itself.

B. The Three Questions Must Be Answered "Yes."

1. Condition 4 Applies to the Design Change Request and Requires Compliance with R307-401-1.

Based on undisputed facts, Condition 4 applies to the UAMPS design change request. As established above, giving Condition 4 its plain meaning is the only way to make sense of the AO provision. Thus, because a change in technology from a subcritical to supercritical boiler is a modification to equipment that "could effect" emissions, the Executive Secretary must comply with R307-401-1 before approving any such technology change.

First, the Executive Secretary's "increased emissions" argument has no bearing on Condition 4, which by its own terms applies to changes to equipment that "could effect" emissions. Similarly, the Executive Secretary's "modification of a source" argument has no bearing on Condition 4, which by its own terms applies to "modifications to equipment."

Second, that the design change "could affect" emissions has been admitted in the record. IPSC and UAMPS together concede that "a net decrease in emissions as measured in lb/MWh" and "actual reductions in tons per year" of SO_2, NO_X, and particulates can be realized with the installation of a supercritical boiler for Unit 3. Moreover, IPSC has not disputed these admissions.

Third, even if supercritical technology were equivalent to subcritical technology, Condition 4 applies. Condition 4 requires compliance with R307-401-1 whenever "modifications to the equipment or processes approved by this AO . . . could affect" regulated emissions.[48] Read together, Condition 4 **and** Condition 7 dictate that even should there be a substitution of "equivalent equipment," if this "modification to the equipment or processes . . . could affect" emissions, compliance with R307-401-1 is required prior to approval of the change.

Thus, it is evident, on the basis of undisputed facts, that the request to change the design of Unit 3 from subcritical to supercritical technology triggered Condition 4. Because, as undisputed facts establish, the Executive Secretary did not comply with R307-401-1 as required by Condition 4, his approval of the request violates the AO and is unlawful.

2. ***The Executive Secretary's Equivalency Determination is Unsupported and Therefore Arbitrary and Capricious.***

As established above, it is an undisputed fact that there is nothing in the record to support the Executive Secretary's decision to approve the design change request. The Executive Secretary's failure to point to anything in the record that supports his equivalency determination means that summary judgment is particularly warranted here. This is because the Executive Secretary cannot "rest upon the mere allegations or denials . . . but . . . must set forth specific facts showing that there is a genuine issue for trial." Utah R. Civ. P. 56(e) ("Summary judgment, if appropriate, shall be entered against a party failing to file such a response."); Grand County v. Rogers, 2002 UT 25, ¶ 21, 44 P.3d 734 (if a party only relies on "mere allegations or denials of the pleadings,"

[48] AR at 4334.

summary judgment against that party is appropriate). Despite this requirement, the Executive Secretary has merely alleged that his equivalency determination is adequate to sustain his decision, while pointing to no specific facts to support this contention. As a result, his acquiescence to UAMPS request is arbitrary and capricious, as it has no basis in the record.

3. The Executive Secretary's Equivalency Determination is Incorrect.

For several reasons, each based on undisputed facts, supercritical technology, as proposed for Unit 3, is not equivalent to subcritical technology. First, as UAMPs admits, holding inputs the same, supercritical technology will produce more electricity than subcritical technology.[49] UAMPS also admits that "[a]lternatively, a supercritical boiler can produce the same level of power output using a lesser amount of coal."[50] This, in turn, would reduce emissions from the facility.[51] Thus, the two technologies are not equivalent.

Second, the supercritical boiler, as proposed by IPSC, cannot be equivalent to the previously-approved subcritical boiler because the AO terms and conditions written for the subcritical technology do not make sense when applied to the supercritical technology. For example, UAMPS admits that "[i]nstallation of a supercritical boiler **will result in a net decrease in emissions** as measured in lb/MWh."[52] IPSC states that

[49] AR IPSC 4474 ("there is approximately a three percent improvement in heat rate . . . thereby increasing the power output of the steam turbine-generator for the same coal burned in the boiler.")
[50] Id.
[51] AR IPSC 4475 ("[i]nstallation of a supercritical boiler will result in a net decrease in emissions as measured in lbs/MWh.").
[52] AR IPSC 4475 (emphasis added).

supercritical technology will produce "actual reduction in tons per year" of emissions.[53] Yet, the AO contains emission limits expressed in pounds per megawatt hour, as well as pounds per hour, that do not reflect these reductions. Therefore, based on units which the AO considers significant, the two technologies are not equivalent.

Third, if, as UAMPS requested and the Executive Secretary approved, IPSC installs a supercritical boiler and keeps the coal feed rate and heat input the same, IPSC will not be operating a 950 megawatt power generating unit. By the calculations of UAMPS, which are undisputed, the technology will be three percent more efficient.[54] This means that Unit 3 will produce, at a minimum, 979 megawatts of electricity with the same fuel inputs. This would conflict with the AO, which authorizes installation of a 950 megawatt facility. Therefore, because the installation of supercritical technology would violate the AO, the two technologies are not equivalent.

Fourth, both DAQ and IPSC soundly rejected supercritical technology for Unit 3.[55] Therefore, given the lack of explanation in the record for this complete turn around, and the position taken by the agency and the corporation, the two technologies are not equivalent.

Thus, examined from every angle, the Executive Secretary's equivalency determination is incorrect and cannot be supported by the record. As a result, the determination is arbitrary and capricious and unlawful.

[53] AR IPSC 3891.
[54] AR IPSC 4474.
[55] AR IPSC 4297 & 3891.

II. The Sierra Club Withdraws its Motions for Leave to Amend and for Summary Judgment On Statement of Reason # 22.

The Sierra Club submitted its Statement of Reason # 22 based on what the DAQ and IPSC now recognize is a "preliminary" Administrative Record distributed by the Executive Secretary on February 15, 2007, arguing that the AO for the proposed plant had expired by operation of law. DAQ and IPSC now supply documents which do not appear in the Administrative Record showing that IPSC applied for, and DAQ granted, an extension to the AO based on Condition 8 of the AO. One of the documents, the January 13, 2006 IPSC letter requesting the extension, specifically provides a "BACT Update" describing that IPSC "is mindful of the need to assure that there have not been any significant changes in BACT determinations since the AO for Unit 3 was originally issued." DAQ IPSC Brief, Exhibit B, at 3 (emphasis added). Despite the obvious relevance of this document to Sierra Club's claims regarding the adequacy of the DAQ's BACT determination, this document was left out of the "preliminary" Administrative Record. The omission of IPSC's letter from the preliminary record is glaring – and underscores the importance of a full and fair discovery process to ensure that the Board has all the relevant facts available when it hears the merits of these claims.

Furthermore, there can be no argument that the Sierra Club's motion for leave to amend its request for agency action was untimely. The information that DAQ and IPSC now attach to their briefs was never made available to the general public; DAQ did not include it in the "preliminary" Administrative Record – although IPSC's January 13, 2006 submission includes updated information regarding the best available control technology – and, most importantly, the Sierra Club was expressly excluded from the

administrative process for lack of standing at the time the January 13, 2006 submission was made and the extension approved. Thus it was perfectly reasonable for the Sierra Club to wait for the Supreme Court's decision reinstating it in these proceedings, and the subsequent production of the administrative record, before moving for leave to amend. Kelly v. Hard Money Funding, Inc., 2004 UT App 44, ¶ 38, 87 P.3d 734 (holding that a party is fully justified in waiting to move to amend until reliable confirmation of the facts can be obtained). The very purpose of the discovery process in an administrative proceeding is for parties to obtain information that has otherwise been unavailable, to allow the Board "to obtain full disclosure of relevant facts" and "to afford all the parties reasonable opportunity to present their positions," as required by the Utah Administrative Procedures Act. Utah Code Ann. § 63-46b-8(1)(a). Given that the parties have barely begun the discovery process, and the hearings on the merits are many months off, the DAQ and IPSC cannot credibly argue that they would have been prejudiced by the addition of a claim, or that the proposed amendment was in any way untimely. See Pett v. Autoliv ASP, Inc., 2005 UT 2, ¶ 6, 106 P.3d 705, 706-07 (holding that amendments to pleadings are appropriate to allow examination of all issues in a case, so long as the other parties have a "reasonable time" to respond to the newly-added issues).

Had the DAQ properly included documents referencing the extension of the project in the Administrative Record, Sierra Club would not have asked for leave to amend based solely on a failure to obtain an AO extension. Because the DAQ has now produced this evidence, the Sierra Club withdraws its motion for leave to amend, and its motion for summary judgment as to Statement of Reasons # 22. However, depending on what additional information is uncovered as a result of the discovery process and DAQ's

further supplementation of the "preliminary" record, Sierra Club reserves the right to request a further amendment of its request for agency action regarding the adequacy of the DAQ's analysis when it approved the requested AO extension.

CONCLUSION

For the foregoing reasons, the Sierra Club respectfully requests that the Board grant its motion for summary judgment on Statements of Reasons # 20 and # 21, and the Sierra Club respectfully withdraws its motion to further amend its First Amended Request for Agency Action requesting leave to add Statement of Reasons # 22, along with its motion for summary judgment as to Statement of Reason # 22.

Dated: March 26, 2007

DAVID BECKER
JORO WALKER
Attorneys for Utah Chapter of the Sierra Club

CERTIFICATE OF SERVICE

I hereby certify that on this 26th day of March 2007, I caused a copy of the foregoing Sierra Club's Reply in Further Support of Its Motion for Summary Judgment to be emailed to the following:

Fred G. Nelson
Counsel, Utah Air Quality Board
160 East 300 South, 5th Floor
Salt Lake City, Utah 84114
fnelson@utah.gov

Christian Stephens
Paul McConkie
Assistant Attorneys General
150 North 1950 West
Salt Lake City, Utah 84114
cstephens@utah.gov
pmcconkie@utah.gov

E. Blaine Rawson
George Haley
Holme Roberts & Owen
299 S. Main Street #1800
Salt Lake City, Utah 84111
bliane.rowson@hro.com
haleyg@hro.com

Fred Finlinson
11955 Lehi-Fairfield Road
Saratoga Springs, Utah 84043
f2fwcrf@msn.com

Michael Keller
Matthew McNulty
VanCott Bagley
50 South Main, Suite 1600
Salt Lake City, Utah 84114
mkeller@vancott.com
mmcnulty@vancott.com

Martin Banks
Stoel Rives
201 West main, Suite 1100
Salt Lake City, Utah
mkbanks@stoel.com

Michael Jenkins
PacifiCorp
201 South Main, Suite 2200
Salt Lake City, Utah
michael.jenkins@pacificorp.com

Brian Burnett
Callister Nebeker
10 West South Temple, Suite 900
Salt Lake City, Utah 84133
brianburnett@cnmlaw.com

DAVID BECKER